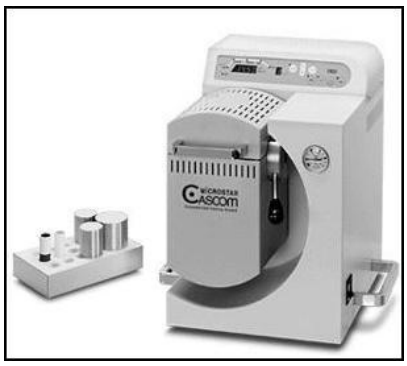
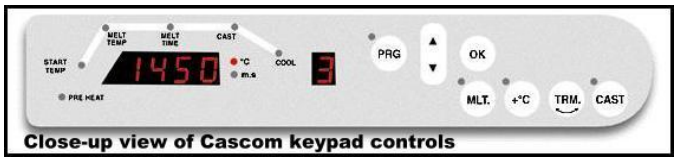
Cascom Computerized Vacuum/Pressure Casting System (Project 99-24) (11/99)

UPDATE: This item is no longer sold through Microstar Corporation.



The Cascom is a microprocessor-controlled vacuum/pressure casting machine that heats alloy to 1500°C. It has a motorized inverting chamber and complies with Occupational Safety and Health Administration (OSHA) machine guarding requirements. The digital memory holds up to 16 user-defined programs that specify start temperature, melt temperature, melt time, casting time and cooling time. It also has self-monitoring and diagnostic programs to manage heating element power flow, chamber position, vacuum pressure, and program integrity. Other safety features include a fused power supply to the ceramic resistance-heating element and microprocessor. All controls, vacuum pump and motor are internal. The unit requires 115 VAC and a 50- to 60-psi air supply. The Cascom casting machine is recommended for use with noble-metal and base-metal metal-ceramic alloys and with Type I to IV gold alloys. It is specifically not to be used to melt chrome-cobalt alloys due to the prolonged high temperatures required. The unit is 15.5 inches wide X 16.5 inches high X 13.5 inches deep and weighs 88 pounds.



Close-up view of Cascom keypad controls

Manufacturer/Source:
Microstar Corporation
4220 Steve Reynolds Blvd., STE 19
Norcross, GA 30093
(800) 313-6427
(770) 935-4466
(770) 935-4460 FAX
www.microstarcorp.com

Suggested Retail Price:
$13,000.00 KDF Cascom Casting System with the standard accessories package which includes 10 carbon crucibles, 10 ceramic crucibles, crucible stand, crucible retort, metal casting rings and formers, tongs, operation and casting manual
$13.50 CAR Cascom Carbon Crucible
$13.50 CER Cascom Ceramic Crucible
$85.00 Retort

Government Price:
$10,400.00 KDF Cascom Casting System (contents as listed above)
$8.50 CAR Cascom Carbon Crucible
$8.50 CER Cascom Ceramic Crucible
$85.00 Retort

ADVANTAGES:
+ No wasted alloy as compared to conventional torch-air casting.
+ Reduces human error with user-defined casting programs.
+ Melt cycle allows technician to verify alloy has reached liquid state prior to casting.
+ Cost savings; alloy can be reused without adding new alloy to replace burned-out alloy elements.
+ All operations and components are internal which complies with OSHA machine guarding requirements.

DISADVANTAGES:
- Initial cost is high.
- Not suitable for casting chrome-cobalt alloys.

SUMMARY AND CONCLUSIONS:
The Cascom Casting System is a programmable casting machine that reduces miscasts and alloy costs. Evaluators reported it took 15 minutes to learn to operate the machine and to produce acceptable castings. Completely self-contained, it only needs to be connected to a compressed air source and conventional 115V electrical outlet. One area dental laboratory reported that the one-year alloy cost savings justified the price of the system. Evaluators at a smaller dental clinic laboratory expressed the opinion that the high quality of the castings, safety compliance, and the savings in alloy costs justified the price. The **Cascom Computerized Vacuum/Pressure Casting System** is rated **Acceptable** for use by the federal dental services.